## REMARKS

Claims 1-36 are pending in the present application. Claims 3, 5, 7, 8, 12, 20, 22, 24, 25, 29 and 36 have been amended herewith. Reconsideration of the claims is respectfully requested.

### I. 35 U.S.C. § 103, Obviousness

The Examiner rejected Claims 1-36 under 35 U.S.C. § 103 as being unpatentable over Vaishnavi et al. (5,734,642) in view of Kekic et al. (6,664,978). This rejection is respectfully traversed.

Generally speaking, the present invention of Claim 1 is directed to a method for discovering status of a network topology using a plurality of alternative discovery techniques. These alternative discovery techniques may be presented in a menu for user selection, in order to establish an order in which the alternative discovery methods should be performed. Claim 8 is similarly directed to a method for discovering status of a network topology, and uses status for an existing network topology and a network response time in the programmatically determined network discovery process.

In contrast, the teachings of the cited Vaishnavi reference teach use of a single, fixed network manager for network discovery purposes. While this fixed network manager may use a plurality of discovery commands, these discovery commands are not (i) user specified or (ii) programmatically determined based on historic data.

The present invention advantageously allows for dynamic adaptation of the type(s) of discovery techniques to use based upon the current network topology to enable more efficient use of resources when performing the discovery of a network topology. The discovery techniques are either (i) user specified (Claim 1), or (ii) programmatically determined based upon historic data (Claim 8).

Specifically with respect to Claim 1, such claim recites "presenting an interface having a menu, *the menu having a plurality of alternative discovery methods*", and "*responsive to user input, establishing an order in which the alternative discovery methods should be performed*". As can be seen, the order in which alternative discovery methods should be performed as a part of discovering the network topology status is



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responsive to user input, such that the ordering can easily be changed/adapted based on the particular situation at hand. None of the cited references teach or suggest an ability for a user to specify the order by which the discovery methods should be performed. In rejecting Claim 1, the Examiner states that the cited Vaishnavi reference teaches "establishing an order in which the alternative discovery methods should be performed" at col. 5, lines 44-63 and col. 7, lines 52-62, and that the cited Kekic reference teaches "a menu". Notably absent is any assertion that any of the cited references teach or suggest presenting an interface having a menu, *the menu having a plurality of alternative discovery methods*. This is likely because none of the cited references teach or suggest a menu having a plurality of alternative discovery methods. Accordingly, there is similarly no teaching or suggestion of *responsive to user input, establishing an order in which the alternative discovery methods should be performed*. To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. MPEP 2143.03 (emphasis added by Applicants). *See also, In re Royka*, 490 F.2d 580 (C.C.P.A. 1974). As all of the claim limitations are not taught or suggested by the cited references, it is shown that the Examiner has failed to establish a prima facie showing of obviousness. Accordingly, Claim 1 has been erroneously rejected under 35 USC 103[1].

As described above, by providing an ability for a user to easily control the ordering of discovery methods used when discovering network topology status, it is possible for a user to dynamically modify the order in which the discovery methods are executed depending upon the particular circumstance/environment at hand to better utilize resources of the network (Specification page 2, lines 28-32).

Applicants initially traverse the rejection of Claims 2-7 for reasons given above with respect to Claim 1 (of which Claims 2-7 depend upon).

Further with respect to Claim 3, Applicants urge that none of the cited references teach or suggest using an appropriate discovery method according to a record of

[1] If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In the absence of a proper *prima facie* case of obviousness, an applicant who complies with the other statutory requirements is entitled to a patent. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).



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compliant devices which is dynamically gathered. In rejecting Claim 3, the Examiner states that Vaishnavi teaches using an appropriate discovery method according to the record at col. 5, lines 44-63 and col. 7, lines 52-62. Applicants show that to the contrary, the passage at col. 5 describes providing discovery commands to devices, and receiving responses to the discovery commands from the devices. There is no teaching or suggestion of any record of devices *that are compliant with a particular type of discovery method*, as expressly recited in Claim 3. As to the cited passage at col. 7, such passage describes a state table that indicates an action to be taken with respect to a device in response to receiving new device information regarding the device. While certain actions listed in the table are with respect to triggering a discovery action, there is no teaching of a plurality of different ways to perform such discovery action based upon device compliance with a particular discovery technique, as per the present invention. Importantly, the state table as taught by the cited reference does not maintain any type of discovery method compliance for the devices, and therefore it necessarily follows that it does not teach/suggest *using an appropriate discovery method* for a device according to a record having discovery method compliance information. Thus, Claim 3 is further shown to have been erroneously rejected.

Further with respect to Claim 4, Applicants show that none of the cited references teach or suggest the claimed step of "altering the established order of the devices in the network according to a first number of devices compliant to the first discovery method and a second number of devices compliant to the second discovery method according to the record". In rejecting Claim 4, the Examiner cites the identically passages cited in rejecting Claim 3. Applicants have reviewed these passages extensively, and can find no teaching or suggestion of any type of altering of the established order of the devices, and therefore there is no teaching or suggestion of altering of the established order of the devices according to device compliance with discovery methods, as expressly recited in Claim 4. Thus, Claim 4 is further shown to have been erroneously rejected under 35 USC 103 as all claimed features are not taught or suggested by the cited references.

Further with respect to Claim 5, such claim has been amended to specify that there are multiple types of discovery methods. The passage cited in rejecting Claim 5 teaches but a single, fixed and non-changeable SNMP protocol. Thus, the amendment to



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Claim 5 clearly differentiates the claimed invention therein from the teachings/suggestions of the cited references.

Further with respect to Claim 6, and similar to some of the reasons given above with respect to Claim 4, the cited Vaishnavi passage does not teach or suggest any ability *to modify the established order* of the alternative discovery methods. Thus, Claim 6 is further shown to not be obvious in view of the cited references.

Further with respect to Claim 7, Applicants urge that none of the cited references teach or suggest any ability to enable a mixture of the alternative discovery methods. In rejecting Claim 7, the Examiner cites Vaishnavi col. 5, lines 44-63 as teaching this claimed feature. Applicants have amended Claim 7 to further clarify and distinguish the present invention from the teachings of the cited references.

With respect to Claim 8, such claim has been amended in an attempt to clarify the distinctions between the invention recited therein and the teachings of the cited references. As amended, Claim 8 recites "determining, from a plurality of network access policies, a network access policy that is to be used when performing the next discovery action, the network access policy determination being based on a network response time". As can be seen, there are a plurality of network access policies, and a particular one of these network access policies is used when performing the next discovery action. In addition, the determination of which of the plurality of network access policies to use is based on a network response time, thereby advantageously providing for a dynamic determination of which network access policy to use based upon the network response time. Importantly, Claim 8 recites (i) a plurality of network access policies, (ii) a next discovery action, and (iii) use of one of the plurality of network access policies when performing this next discovery action, the particular network access policy to be used being determined based upon a network response time. This clearly distinguishes Claim 8 from Vaishnavi's teaching of a plurality of discovery actions/commands using a *single network access mechanism* – the network manager - which is fixed and does not change, either based on network response time or otherwise. Nor does the teaching of the cited Kekic reference overcome this teaching/suggestion deficiency. Thus, amended Claim 8 is shown to not be obvious in view of the cited references.



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Further with respect to Claim 10, none of the cited references teach or suggest the claimed feature of "wherein determining the policy based on a network response time is determined by a count of devices within the network". In rejecting Claim 10, the Examiner cites Vaishnavi's teaching at col. 4, lines 49-67 and col. 5, lines 1-16 as teaching this claimed feature. Applicants urge that while this passage may teach receiving different types of status information from multiple devices, there is no teaching, suggestion, or other indication that this status information is used in ascertaining a count of devices within the network to determine a network access policy to be used. Thus, Claim 10 is further shown to not be obvious in view of the cited references.

Further with respect to Claim 11, none of the cited references teach or suggest the claimed feature of "wherein determining the policy based on a network response time is determined by relative abilities of devices in the network". In rejecting Claim 11, the Examiner cites the identical Vaishnavi's teaching (col. 4, lines 49-67 and col. 5, lines 1-16) that was cited as teaching the features of Claim 10. Applicants urge that while this passage may teach receiving different types of status information from multiple devices, there is no teaching, suggestion, or other indication that this status information is used in ascertaining a relative ability of devices in the network to determine a network access policy to be used. In addition, Claim 10 and Claim 11 are different, so even assuming arguendo that this cited Vaishnavi teaches ascertaining a count of devices (as alleged by the Examiner in rejecting Claim 10, and which Applicants deny), such teaching would not establish any type of ascertaining of *relative abilities of devices* and using this relative ability of the devices when determining which network access policy to use, as expressly recited in Claim 11. Thus, Claim 11 is further shown to not be obvious in view of the cited references.

Further with respect to Claim 12, none of the cited references teach or suggest the claimed feature of "developing an order of relative capabilities for a managed device as compared to other device or devices in the network". In rejecting Claim 12, the Examiner cites Vaishnavi col. 5, lines 44-63 and col. 7, lines 52-62 as teaching this claimed feature. Applicants urge that this col. 5 passage merely describes an ability to poll devices for "desired information". There is no teaching or suggestion of what this "desired information" is (other than stating it is status information), or how this "desired



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information" is used, and in particular there is no teaching or suggestion that this desired information includes device capabilities or that this desired information is used in developing an order of relative capabilities for a managed device as compared to other device(s) in the network. Nor does the passage cited by the Examiner at Vaishnavi col. 7 overcome this teaching/suggestion deficiency. There, Vaishnavi describes a table that is used to determine what action to take with respect to a given device upon receipt of new device information about that device. This table is single device-concentric, and provides no relative ordering of device capabilities with respect to other devices in the network. Thus, Claim 12 is still further shown to not be obvious in view of the cited references as there are additional claimed features not taught or suggested by the cited references.

Further with respect to Claim 13, such claim recites a conditional step of employing a single device status gathering technique *if* a count of devices left to discover is less than a predetermined amount. None of the cited references, including the specific cited passage at Vaishnavi col. 6, lines 12-25 and col. 7, lines 52-62, teach such conditional employment of a single device status gathering technique. Rather, the cited passage at col. 6 merely states that the control model 'initiates action, when appropriate, for example to gain more information regarding the status of a device'. The term "when appropriate" does not teach or otherwise suggest the specific condition of "*if* a count of devices left to discover is less than a predetermined amount", and the action itself (gaining information regarding status of a device) does not teach or suggest employing a single device status gathering technique, as expressly recited in Claim 13. The cited passage at col. 7 is similarly deficient in teaching/suggesting the above identified missing features of Claim 13. Specifically, the cited passage at col. 7 describes a state table for a single device with no teaching/suggestion of any count of devices left to discover, or use of this (missing) count in a conditional determination. Thus it is shown that Claim 13 (and similarly for dependent Claim 14) is not obvious in view of the cited references.

Applicants further traverse the rejection of Claim 15 (and dependent Claim 16) for similar reasons to those given above regarding Claim 13 and the lack of a teaching/suggestion of any type of conditional employment of a status gathering technique based upon a count of devices left to discover.



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Further with respect to Claim 17, Applicants urge that none of the cited references teach or suggest that as a part of discovering a status for an existing network topology, a determination is made as to a best order to discover such status. The passages cited by the Examiner in rejecting this claim pertain to updating an individual device model (which is device specific and provides no information pertaining to the overall network topology) and use of an individual device state table (which also is device specific and provides no information pertaining to the overall network topology). Thus, Claim 17 is further shown to not be obvious in view of the cited references.

Applicants traverse the rejection of Claims 18 (and dependent Claims 19-24) and 35 for similar reasons to those given above with respect to Claim 1.

Applicants further traverse the rejection of Claim 20 for similar reasons to those further reasons given above with respect to Claim 3.

Applicants further traverse the rejection of Claim 21 for similar reasons to those further reasons given above with respect to Claim 4.

Applicants further traverse the rejection of Claim 22 for similar reasons to those further reasons given above with respect to Claim 5.

Applicants further traverse the rejection of Claim 23 for similar reasons to those further reasons given above with respect to Claim 6.

Applicants further traverse the rejection of Claim 24 for similar reasons to those further reasons given above with respect to Claim 7.

Applicants traverse the rejection of Claims 25 (and dependent Claims 26-34) for similar reasons to those given above with respect to Claim 8.

Applicants further traverse the rejection of Claim 27 for similar reasons to those further reasons given above with respect to Claim 10.

Applicants further traverse the rejection of Claim 28 for similar reasons to those further reasons given above with respect to Claim 11.

Applicants further traverse the rejection of Claim 29 for similar reasons to those further reasons given above with respect to Claim 12.

Applicants further traverse the rejection of Claims 30, 31, 32 and 33 for similar reasons to those further reasons given above with respect to Claim 13.



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Applicants further traverse the rejection of Claim 34 for similar reasons to those further reasons given above with respect to Claim 17.

With respect to Claim 36, Applicants have amended such claim to encompass an environment were the means for monitoring of individual devices is dynamically adapted based upon the network response time. The cited Vaishnavi reference teaches use of a single, fixed/non-changing network manager, as previously described with respect to Claim 1. Therefore, Claim 36 is shown to not be obvious in view of the cited references.

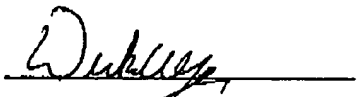
Therefore, the rejection of Claims 1-36 under 35 U.S.C. § 103 has been overcome.

## II. Conclusion

It is respectfully urged that the subject application is patentable over the cited reference and is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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